REMARKS

Detailed Action

Applicant acknowledges the transfer of this application to Examiner Ashwin Mehta.

The Examiner states that claims 1-9, 10 (amended), 11-13, 14 (amended), 15-17, 18 (amended), 19-22, 23 (amended), 24-26, 27 (amended), 28-30, 31 (amended) and 32 remain rejected under 35 U.S.C. § 112, first paragraph. Claims 1-9, 10 (amended), 11-13, 14 (amended), 15-17, 18 (amended), 19-22, 23 (amended), 24-26, 27 (amended), 28-30, 31 (amended) and 32 remain rejected under 35 U.S.C. § 112, second paragraph. Claims 11, 15, 19, 24, 28 and 32 remain rejected under 35 U.S.C. § 112, second paragraph. Claims 11,15, 19, 24, 28 and 32 remain rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Carrigan.

The Examiner concludes that Applicant's arguments filed July 2, 2001 were fully considered but were found not persuasive.

Rejections Under 35 U.S.C. § 112, First Paragraph

The Examiner maintains that claims 1-9, 10 (amended), 11-13, 14 (amended), 15-17, 18 (amended), 19-22, 23 (amended), 24-26, 27 (amended), 28-30, 31 (amended) and 32 remain rejected under 35 U.S.C. § 112, first paragraph. Applicant respectfully traverses this rejection and again reiterates with regard to deposit of Hybrid 38J54, Applicant wishes to note that:

- a) during the pendency of this application access to the invention will be afforded to the Commissioner upon request;
- b) all restrictions upon availability to the public will be irrevocably removed upon granting of the patent;
- c) the deposit will be maintained in a public depository for a period of thirty years, or five years after the last request for the enforceable life of the patent, whichever is longer;
- d) a test of the viability of the biological material at the time of deposit will be conducted (see 37 C.F.R. § 1.807); and
- e) the deposit will be replaced if it should ever become inviable.

Applicant wishes to state that the actual ATCC deposit will be delayed until the receipt of notice that the application is otherwise in condition for allowance. Once such notice is received,

an ATCC deposit will be made, and the specification will be amended to contain the accession number of the deposit, the date of the deposit, a description of the deposited biological material sufficient to specifically identify it and to permit examination and the name and address of the depository. The claims will also be amended to recite the ATCC deposit number. In addition, Applicant submits that at least 2,500 seeds of Hybrid 38J54 will be deposited with the ATCC. In light of the above, Applicant respectfully requests the Examiner reconsider and withdraw this rejection.

Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 1-9, 10 (amended), 11-13, 14 (amended), 15-17, 18 (amended), 19-22, 23 (amended), 24-26, 27 (amended), 28-30, 31 (amended) and 32 remain rejected under 35 U.S.C. § 112, second paragraph, "as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention."

Applicant respectfully traverses this rejection. The above-identified claims remain rejected for being "indefinite in the recitation of the limitation 'representative seed having been deposited under ATCC accession number ________". Applicant respectfully traverses this rejection. Applicants will refrain from amending the claim until the time of the actual deposit as set forth in 37 CFR § 1.801-1.809. Applicant respectfully submits that a deposit will be delayed until notice of otherwise allowable claims as provided under 37 C.F.R. § 1.809. Once notice of allowable claims has been received by Applicant, a deposit will be made with the ATCC and the claims and the specification will be amended to recite the accession number.

Claims 11, 15, 19, 24, 28 and 32 remain rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner notes that the claims are indefinite because they are drawn to plants, "wherein at least one ancestor" is the instant maize plant and which plant is "expressing a combination of at least two 38J54 traits" from a Markush group of traits. The Examiner concludes "[a]s claimed the traits are not necessarily inherited from 38J54; the traits could arise in 38J54-derived lines from the genetic material inherited from other parents in their ancestry and just happen to be phenotypically similar to the traits of the 38J54 line".

Applicant respectfully traverses and requests reconsideration. Each of these claims recites two requirements, first that 38J54 be an ancestor of the plant and second that the claimed plant be "capable of expressing a combination of at least two 38J54 traits" selected from a Markush grouping. Applicant notes that the Markush listing is not directed to "traits" but to "38J54 traits" thus Applicant submits that the recitation of 38J54 traits clearly delineates the traits listed as those which are originating from the seed designated 38J54 and thus does limit the degree of relatedness of the derived plant traits listed as those which are from 38J54. In addition, Applicant respectfully submits that the Examiner is not fully recognizing the fact that the traits, although possibly similar to other maize hybrids is <u>not</u> the same physiologically which is vitally important to understanding plant breeding, in general, and the current invention. The recitation of "38J54" in front of the term traits clearly indicates that the traits must be those originating from 38J54. This is particularly so since the claim also requires that the plant 38J54 must be an ancestor of the claimed plant. Therefore, it would be clear to one skilled in the art that the claimed methods and plants are originating from seed 38J54 and contain two or more of the claimed traits. The present invention thus describes a finite set of characteristics and traits that describe inbred sunflower line 38J54. The stated characteristics of the claimed invention would also be known to one skilled in the art to be derived from well known plant breeding techniques which are described within the specification. Applicants therefore respectfully request reconsideration and withdrawal of the rejections to claims 11, 15, 19, 24, 28 and 32 under 35 U.S.C. § 112, second paragraph.

<u>Issues Under 35 U.S.C. § 102/103</u>

Claims 11, 15, 19, 24, 28 and 32 stand rejected under 35 U.S.C. § 102/103 as anticipated by, or in the alternative, as obvious over Carrigan. The Examiner notes that the claims are directed to having 38J54 as an ancestor and expressing two or more "38J54" traits. The Examiner indicates that Carrigan teaches a maize plant with two or more "38J54" traits, noting that the maize plant 38D66 comprises relative maturity of 91 based upon CRM, excellent brittle snap resistance, and suited to the Northcentral United States. The Examiner thus concludes "one of skill in the art would be unable to distinguish the plants encompassed by the instant claims from the prior art cultivar…and thus would be prima facie obvious as a whole".

Applicant respectfully traverses and requests reconsideration. Applicant submits that the claim does not simply recite traits, such as resistance to brittle snap or relative maturity of 91, but instead recites these specific traits only to the extent that they are "38J54" traits; thereby coming solely from the seed/germplasm of 38J54. The claim also recites that the claimed plant must have 38J54 as an ancestor further indicating that these traits must originate from the 38J54 plant. In response to the Examiner's contention that one could not distinguish the claimed plant from the prior art which shows each of these traits, Applicant submits that one can easily tell by reference to the plants breeding history or its molecular profile whether the plant did indeed have plant 38J54 as an ancestor and expressed two or more "38J54" traits. Further, any phenotypic trait that is expressed is a result of a combination of all of the genetic material present in the plant, and 38J54 will have its own unique genetic profile that it will contribute to a breeding program. This unique genetic background will that result in the claimed plant and this profile along with its combination with other plants will result in a unique combined genetic profile that is the product claimed. The resulting plant will not just have traits, but "38J54" traits which will be a unique combination of genetic material.

Applicant further asserts that although other plants may possess similar traits that does not then make the claimed invention obvious, if not anticipated by Carrigan. Applicant asserts that it is not the phenotypic characteristics alone that are claimed and taught in the instant invention. It is a combination of physiological and morphological characteristics, as claimed ,which make the present Hybrid non-obvious and not anticipated over Carrigan. Additionally, as evidenced in tables 2D, 3, and 4, several significant differences exist between hybrid 38D66 and 38J54. Not only are these two hybrids significantly different with respect to many traits, but the genetic profile that is responsible for those differences that each would contribute to a breeding program as ancestors would also be different and unique, as would the descendants. Further, In re Thorpe, states that "a product by process claim may be properly rejected over prior art teaching th4 same product produced by a different process", as noted by the Examiner. 227 USPQ 964, 966 (Fed. Cir. 1985). However, Applicant submits that this is not the same product physiologically or morphologically as the cited prior art as can be evidenced by one skilled in the art through analysis of the data tables in each.

In light of the above, Applicant respectfully requests the Examiner reconsider and withdraw the rejection to claims 11, 15, 19, 24, 28 and 32 under 35 U.S.C. § 102(b) or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Carrigan.

In addition, the Examiner goes on to state, at page 4 of the Office Action, that claims 1-10, 12-14, 16-18, 20-23, 25-27 and 29-31 are free of the prior art. This clearly indicates that the Hybrid 38J54 as a whole is considered distinguishable from the prior art for the purposes of novelty and non-obviousness. In any event, the deposit of the representative seed of Hybrid 38J54 should satisfy the description requirement. In light of the above, Applicant respectfully submits that the above rejections are clearly improper for several reasons and request reconsideration and withdrawal of the rejections.

Conclusion

No fees or extensions of time are believed to be due in connection with this amendment; however, consider this a request for any extension inadvertently omitted, and charge any additional fees to Deposit Account No. 26-0084.

Reconsideration and allowance is respectfully requested.

Respectfully submitted,

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